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# DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER QUALITY

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July 12, 1994

Mr. Adrian Underwood Chief Consolidated Mining Co. P.O. Box 270 Eureka, UT 84628

Re:

Permits Needed for Operation of

Burgin Mine

Dear Mr. Underwood:

It has come to our attention that the Burgin Mine is being proposed to be placed back into operation under a joint venture in the near future. While we are in full support of this project and the economic benefits it could provide the community, we need to insure that it goes forward in an environmentally sound manner. In order that both goals are accomplished we would like to take this opportunity to advise you of the status of this facility with our agency.

On January 28, 1992 we informed Sunshine Mining Company in a letter (enclosed) that the mine's previous construction permit, issued in 1986, had expired and we would not issue any further extensions.

Any activities or facilities related to the mine which may cause a discharge of contaminants to ground water are regulated under the Utah Ground Water Protection Regulations (UAC R317-6, enclosed). As stated in our earlier letter, you must obtain a ground water discharge permit for all such facilities or activities, as well as a construction permit for construction of any facilities which may have an impact on ground water. Facilities potentially subject to regulation under a ground water discharge permit could include those involved in disposal of produced mine water, ore processing and storage, and waste rock disposal. An application for a ground water discharge permit should be submitted at least six months before the permit is needed.

Under the provisions of UAC R317-6, facilities or activities may not cause concentrations of contaminants in the ground water to rise above "protection levels", which are defined based on background concentrations of the contaminants in ground water unaffected by the discharge, and by the ground water class, as defined in the regulations. We would consider

Mr. Adrian Underwood June 29, 1994 Page 2

permitting any design of facilities or plan for activities which could reasonably be expected to not cause an exceedance of these protection levels.

The terms of the ground water discharge permit must also include some means of compliance monitoring to assure us that protection levels are being met. In many cases this can be accomplished if the design of permitted facilities includes features such as a leak detection system which would reveal no discharge is taking place or that contaminants are being discharged at acceptable levels. Otherwise, compliance monitoring is usually done by monitoring ground water. Under this option, background ground water quality must be determined and is used to define protection levels, which must not be exceeded in downgradient monitor wells. Downgradient monitor wells must sample the first ground water which would be affected by discharges from the facility. Correct placement of monitor wells may be difficult in areas with deep ground water, complex geologic structure or a complex ground water flow system.

We would suggest holding a pre-design conference with you to discuss the scope of your planned operations and permitting requirements. We have also included an information document explaining the above in a little more detail. Please contact Mark Novak of this office to arrange a meeting or if you have any questions.

Sincerely,

Co Don A. Ostler, P.E.

Director

Enclosures

DAO:MN:mhf

cc: Utah County Health Dept.

Wayne Hedberg, Div. of Oil, Gas, Mining

P:BURGPERM.LTR FILE:BURGIN MINE (SUNSHINE) Apex No. 2 Shaft Project Informational Document East Tintic Mining District Utah County, Utah

filed by: Chief Consolidated Mining Company P.O. Box 270 Eureka, Utah, 64628 (801) 433-6881

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#### 1.0 Introduction

This correspondence serves as notice that Chief Consolidated Mining Company (Chief) intends to commence underground exploration drilling operations from its Apex No. 2 Shaft Area in September, 1994. The Apex No. 2 Shaft Area is presently included under an amendment (approved February 3, 1994) to the Burgin Project Notice of Intent to Commence Large Mining Operations (File No. ACT/049/009). This NOI was submitted by Sunshine Mining Company (Sunshine) as operator. The Apex No. 2 Shaft Area is included in a larger permit area which is bonded in the total amount of \$737,000.

Effective January 1, 1993 Sunshine ceased to be operator of the Burgin Mine Project and Chief, the property owner assumed those responsibilities. By prior arrangement with Sunshine, Sunshine has maintained the reclamation bond in good standing and Chief has begun preparation of the necessary documentation to achieve an orderly Transfer of Notice of Intention - Large Mining Operation. It is planned that the Transfer will be filed by the end of 1994.

In order to advance its project, Chief intends to conduct an underground exploration program beginning September, 1994. The program has been designed to provide additional information on the Burgin deposit which is critical to future mine planning.

Mr. D. Wayne Hedberg, Permits Supervisor of the Division of Oil, Gas and Mining requested that Chief provide the information contained in this transmittal to allow UDOGM to make a determination whether the proposed drilling activities are defined to be "development drilling conducted within the disturbed area of an approved Large Mining Operation" (Rule R647-2-101(3.5)) or if these activities require an Exploration Notice (R647-2-101). If formal notice is not required, please consider this transmittal as informational. If an Exploration Notice is required, please consider this as an Under 5 acres Exploration Notice. In either event disturbance resulting from Chief's described activities are Chief's responsibility and the Apex No. 2 Shaft Area will be included in the Transfer of Notice of Intention - Large Mining Operation. For ease in the Division's review the following information is presented in the format of R647-2.

### 2.0 Ownership, Maps and Drawings

### 2.1 R647-2-104 Ownership

Project Name:

Apex No. 2 Shaft Area Project

Agent:

Chief Consolidated Mining Company

P.O. Box 270

Eureka, Utah, 64628

Contact:

Adren Underwood, General Manager

(801) 433-6881

Operator:

Burgin Mine Joint-Venture

P.O. Box 270

Eureka, Utah, 64628

Contact:

Adren Underwood, General Manager

(801) 433-6881

Surface and Mineral Owner:

Local Office: Chief Consolidated Mining Company

P.O. Box 270

Eureka, Utah, 64628

Contact:

Adren Underwood, General Manager

(801) 433-6881

Corporate:

Chief Consolidated Mining Company

866 Second Avenue

New York, New York, 10017

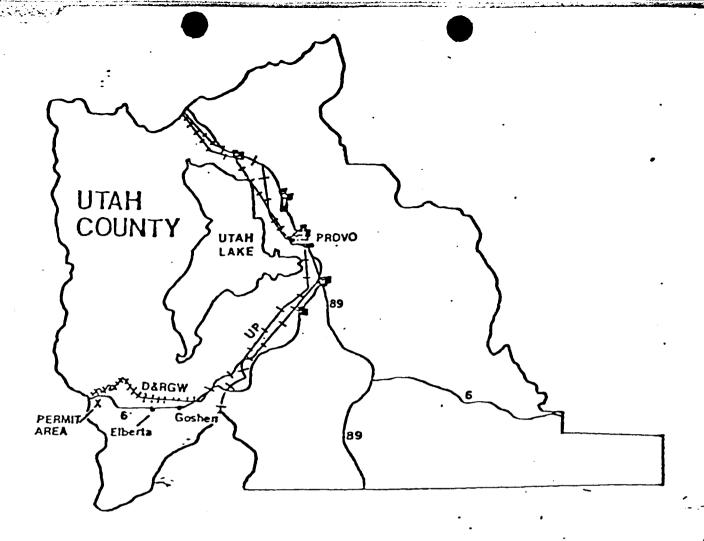
Contact:

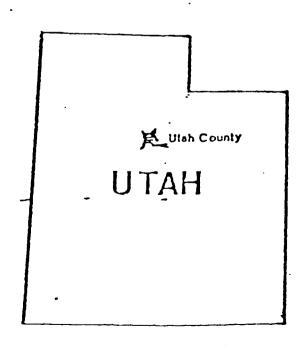
Leonard Weitz, Chairman

(212) 688-8130

#### **2.2 R647-2-105** Maps and Drawings

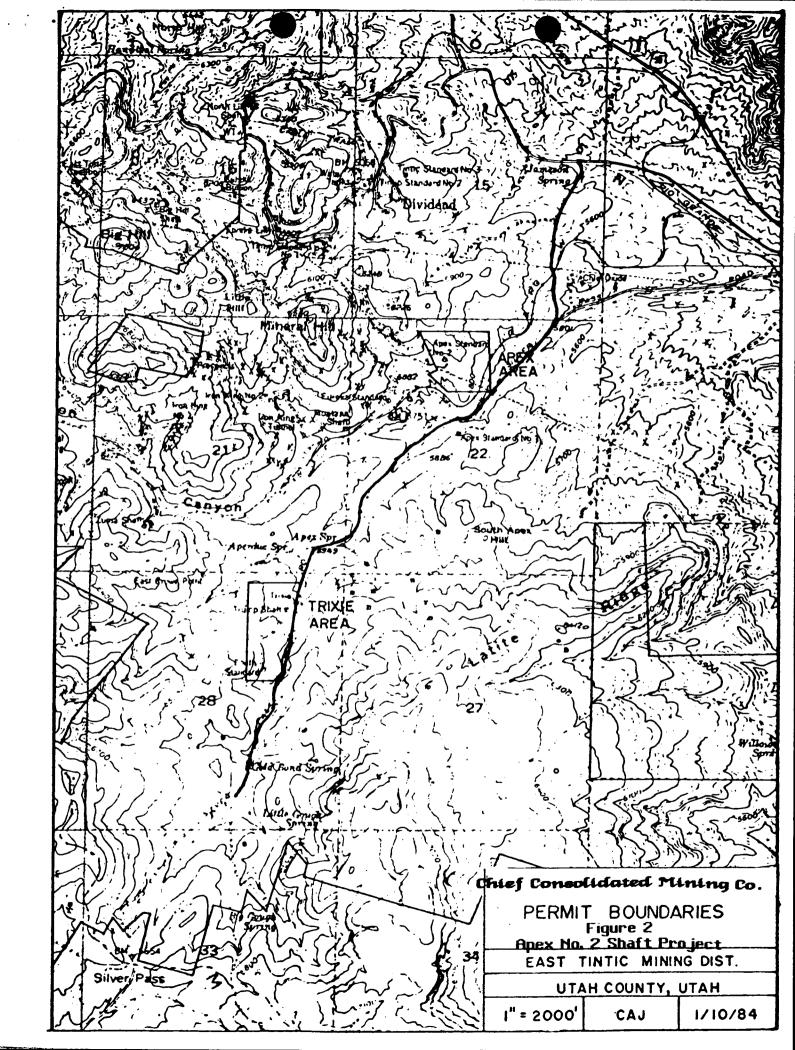
The general location of the Apex No. 2 Shaft Area is shown on Figure 1 and the permit area is shown on Figure 2 which is drawn on a USGS 7.5 minute topographic series map. Also shown on Figure 2 is the Trixie Mine area which is the responsibility of South Standard Mining Company and not Chief.





Chief Consolidated Mining Co.

Figure 1 Apex No. 2 Shaft Project General Location Drawing



## 3.0 Operating Plan

### 3.1 R647-2-106 Project Description

The Apex No. 2 Shaft Area was permitted by Sunshine in 1982 and the physical plant has been maintained on standby status by Chief since 1993. Surface facilities at the site include the fenced approximate 6' by 8' two compartment shaft, the headframe, the development rock disposal area, a combination hoisthouse and machine shop, an auxiliary hoist and hoisthouse, a combination dry and office, a substation and other necessary small structures. No new facilities will be constructed to support the proposed operations.

Chief's proposed underground program will begin following inspection and performance of required maintenance to the existing shaft, buildings and other facilities at the Apex No. 2 Shaft Area. The Apex No. 2 Shaft will be used to gain access to underground drilling locations on the Apex 1300 level which is connected to the Burgin 1050 level. Drilling will begin following completion of underground maintenance and preparation of drilling stations. An initial series of 25 underground drill holes have been planned but this number may be expanded or reduced based upon early drilling results.

It is necessary to drive between 750 and 1,000 feet of new 9' by 9' drifts to reach suitable drill stations to test the extensions of the Burgin orebody. Additional knowledge of the extent and geometry of the orebody is critical for future mine planning. The drifts will be driven by conventional underground methods (drill, shoot and muck) and the approximate 7,000 tons of broken rock will be hoisted to the surface and disposed of on the top of the existing Apex No. 2 development rock disposal area. The 7,000 tons would add about 1 foot in elevation to the disposal area. No disturbance to previously undisturbed areas is planned. Prior testing by Sunshine shows that the development rock does not contain potentially deleterious material. The drifts will be above the watertable and above the orebody.

<u>Schedule</u> - The underground exploration is scheduled to begin in September, 1994 and be completed within a year.

Minerals - The Burgin ore deposit contains gold, silver, lead and zinc.

<u>Drill Hole Information</u> - The NQ and BQ core holes will be drilled from above the watertable from the 1050 level to an average depth of 500 feet below the level.

General Dimensional Information - The Apex No. 2 Shaft is approximately 6' by 8'. The existing development rock disposal area is less than 4 acres. More detailed dimensional information will be included with the forthcoming Permit Transfer application.

<u>New Road Information</u> - No new roads are proposed as a part of the Apex No. 2 Shaft Area Project.

<u>Surface Disturbance Estimate</u> - The proposed program will not result in any additional surface disturbance at the Apex No. 2 Shaft site. Total existing disturbance at the Apex No. 2 Shaft site is estimated to be about 4 acres.

### 3.2 R647-2-107 Operation Practices

Chief will minimize hazards to public safety and welfare during operations by methods such as:

- The Apex No. 2 Shaft will be guarded in accord with applicable MSHA regulations to prevent unauthorized or accidental entry.
- Trash, scrap metal and wood will be disposed of in a approved manner.
- No surface drill holes are proposed so drill hole plugging methods are not applicable.
- The Apex No. 2 Shaft Area has appropriate warning signs posted.
- Unauthorized vehicle traffic to Apex No. 2 Shaft Area is blocked by a locked cable gate. The shaft itself is fenced and locked.

<u>Drainages</u> - The proposed Apex No. 2 Shaft Area operations do not affect natural channels.

<u>Erosion Control</u> - Proposed operations will be conducted to minimize contribution of sediment from site runoff. There are no live waters within a mile of the site.

<u>Deleterious Materials</u> - The proposed Apex No. 2 Shaft Area operations will not produce deleterious materials. Any required small quantities of petroleum products or other chemicals will be properly stored, used and wastes disposed of in accord with applicable regulation. Explosives required for underground mining will be stored and used in strict compliance with MSHA and other applicable regulations.

<u>Soils</u> - No new disturbance is proposed so no new topsoil salvage is planned. Care will be taken to ensure that the topsoil placed in storage by Sunshine will be available for reclamation. It is known that sufficient soil for reclamation is not in storage because the Apex No. 2 Shaft was sunk in the 1920s and no topsoil was saved at that time. Determination of the most effective use of existing topsoil will be made in consultation with UDOGM at the time of Permit Transfer application.

<u>Concurrent Reclamation</u> - The nature of operations at the Apex No. 2 Shaft Area do not allow concurrent reclamation. Areas which have been disturbed but which are not routinely or currently utilized will be kept in a safe, environmentally stable condition.

# 3.3 **R647-2-108** Hole Plugging

All proposed drilling is from underground stations located on the Apex 1300/Burgin 1050 level (same elevation). No drilling from the surface is proposed. All drill holes will penetrate a single unconfined aquifer. Consequently no drill hole plugging is planned.

#### 4.0 Closure and Reclamation Plan

#### 4.1 R647-2-109 Reclamation Practices

Chief currently proposes to employ the following reclamation practices at the Apex No. 2 Shaft Area following completion of mining activities. Please be advised that these practices will be reviewed and possibly amended during the Permit Transfer process.

<u>Public Safety and Welfare</u> - Chief will minimize hazards to public safety and welfare following operations by employing methods such as:

- Per the existing approved permit, the Apex No. 2 Shaft will not be permanently sealed upon completion of mining activities. An alternative shaft closure method which provides for public safety and welfare while allowing the shaft to remain accessible for future exploration and mining activities will be negotiated at the time of permit transfer.
- All trash, scrap metal, wood and extraneous debris will be removed from the Apex No. 2 Shaft Area and properly disposed of. Buildings will be removed from the site following the time that the property owner determines that the buildings are no longer of use.
- No surface drill holes are proposed so drill hole plugging methods are not applicable.
- The Apex No. 2 Shaft Area has appropriate warning signs posted and these warning signs will be maintained so long as a potential public safety hazard is believed to exist.
- There will be no highwalls resulting from operations. Access to the Apex No. 2 Shaft Area will be restricted so long as a potential public safety hazard is believed to exist.

<u>Drainages</u> - The proposed Apex No. 2 Shaft Area operations do not affect natural channels. Final grading of the area will provide for stable drainage around and from the disturbed area.

<u>Erosion Control</u> - Final grading of the disturbed area will be planned to minimize contribution of sediment from site runoff. There are no live waters within a mile of the site.

<u>Deleterious Materials</u> - The proposed Apex No. 2 Shaft Area operations will not produce deleterious materials as demonstrated by testing by Sunshine of materials placed in the development rock disposal area. At closure any remaining explosives, small quantities of petroleum products or other chemicals will be removed from the site and disposed of in accord with applicable regulation.

<u>Land Use</u> - The Apex No. 2 Shaft Area will be left in a condition to support the postmining land uses of grazing and mining.

<u>Slopes</u> - The development rock disposal area will be graded to a stable configuration. Overall slopes will be reduced to an average of 2:1 (horizontal to vertical) to minimize safety hazards and erosion while providing for revegetation.

<u>Highwalls</u> - Any highwalls in the Apex No. 2 Shaft Area will be stabilized by either cutting the wall back to achieve a slope angle of 45 degrees or less or by backfilling against them.

Roads and Pads - No on-site roads were constructed as a part of the Apex No. 2 Shaft Area operations and the property owner has requested that existing roads be left in place consistent with the property's postmining land uses of grazing and mining. When operations are completed, all roads will have adequate surface drainage structures and the roads will be maintained to a condition suitable for continued use. There are no pads required for operations at the Apex No. 2 Shaft Area.

<u>Dams and Impoundments</u> - No water impounding structures were constructed as a part of Apex No. 2 Shaft Area operations.

<u>Trenches and Pits</u> - No trenches or pits were constructed as a part of Apex No. 2 Shaft Area operations.

<u>Structures and Equipment</u> - All debris will be removed or buried from the Apex No. 2 Shaft Area following completion of operations. The ultimate disposition of structures, equipment and utility connections will subject to negotiation between UDOGM and the property owner at the time of Permit Transfer application.

<u>Topsoil Redistribution</u> - It is known that sufficient soil for reclamation is not in storage because the Apex No. 2 Shaft was sunk in the 1920s and no topsoil was saved at that time. Determination of the most effective use of existing topsoil will be made in consultation with UDOGM at the time of Permit Transfer application. After final grading, available soil materials will be redistributed on a stable surface so as to minimize erosion, prevent undue compaction and promote revegetation.

<u>Revegetation</u> - The species to be proposed at the time of Permit Transfer will include adaptable perennial species as shown by the results of Sunshine's revegetation field trials and discussions with UDOGM. The selected species will provide basic soil and watershed protection, support the postmining land uses of grazing and mining and will be economically available.

Due to the fact that sufficient soil materials are not available, Chief and UDOGM will need to negotiate alternative revegetation success criteria at the time of the Permit Transfer application.

#### 4.2 R647-2-110 Variance

Any variances identified in this informational document are believed to have been already granted in the existing permit. Where further clarifications are required these will be addressed along with the entire Burgin Mine facility in the Transfer of Notice of Intention - Large Mining Operation application.

## 4.3 R647-2-111 Surety

It is not believed that this informational document will result in any additional surety requirement.